

Appl. No.: 10/804,925
Docket No.: DB001089-000
Amdt. Dated: 17 October 2007
Reply to Office action of 17 July 2007

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 – 17. (canceled).

18. (currently amended) A fuel cell assembly comprising one or more fuel cell bundles, each fuel cell bundle comprising:

an array of elongated tubular fuel cells comprising a first row of spaced apart, elongated tubular fuel cells; a second row of spaced apart, elongated tubular fuel cells; and a plurality of elongated electrical connectors each made of sheet material having at least two curved surfaces, a first contact for coupling with a first fuel cell and a second contact for coupling with a second cell, wherein each of said first and second contacts comprises a plurality of parallel, open slots disposed along an edge of said sheet material which define a plurality of flexible members, and wherein each of said electrical connectors is disposed between at least two of said elongated tubular fuel cells;

an oxidant supply system;

a fuel supply system;

a fuel reformation system; and

a support structure for integrating as a bundle said fuel cells, said oxidant supply system, said fuel supply system, and said fuel reformation system. ~~A multi-function bundle, comprising:~~

~~an elongated annular fuel cell having an oxidant electrode and a fuel electrode separated by an electrolyte and;~~

~~an oxidant feed tube operable to supply an oxidant to said oxidant electrode;~~

~~a fuel feed tube assembly operable to supply fuel to said fuel; and~~

~~a support structure for enabling said elongated annular fuel cell, said oxidant feed tube, and said fuel feed tube assembly to operate as a modular unit.~~

19. (currently amended) The fuel cell assembly multi-function bundle of claim 18 wherein each of said plurality of elongated electrical connectors has a substantially S-shaped cross-section and each of said first and second contacts comprises a concave outer surface further comprising one or more electrical connectors operable to electrically connect two or more of said plurality of fuel cells.

20. (currently amended) The fuel cell assembly multi-function bundle of claim 1819 wherein each of said plurality of elongated electrical connectors comprises one or more sheet materials selected from the group consisting of: nickel sheet, copper sheet and aluminum sheet. said one or more electrical connectors is comprised of an elongated conductive strip having a first contact for coupling with a first fuel cell and a second contact for coupling with a second cell.
21. (currently amended) The fuel cell assembly multi-function bundle of claim 1820 wherein one or more of said plurality of elongated electrical connectors provides an electrical connection between a fuel cell from said first row and a fuel cell from said second row at least one of said first and said second contacts is curved to couple with the curvature of an outside surface of one of said first and second fuel cells.
22. (currently amended) The fuel cell assembly multi-function bundle of claim 18 wherein each of said fuel cells is a solid oxide fuel cell having an oxidant electrode and a fuel electrode separated by an electrolyte, wherein at least one end of each of said solid oxide fuel cells is closed and wherein said oxidant electrode and said fuel electrode each have one of said electrical connectors attached thereto and wherein said oxidant electrode and said fuel electrode each have an electrical connection attached thereto.
23. (currently amended) The fuel cell assembly multi-function bundle of claim 18 wherein one or more of said plurality of elongated electrical connectors further comprises third and fourth contacts and provides an electrical connection between four fuel cells with two of said four fuel cells being from said first row and two from said second row said fuel feed tube assembly comprises an inlet leg in fluid communication with an outlet leg to form a flow path.
24. (currently amended) The fuel cell assembly multi-function bundle of claim 1823 wherein said oxidant supply system further comprises:
a plurality of oxidant feed tubes; and
an exhaust/air distribution chamber for supplying oxidant to said plurality of oxidant feed tubes fuel feed tube assembly further comprises a support fin.

Appl. No.: 10/804,925
Docket No.: DB001089-000
Amdt. Dated: 17 October 2007
Reply to Office action of 17 July 2007

25. (currently amended) The fuel cell assembly multi function bundle of claim 24 wherein each of said fuel cells is associated with at least one of said plurality of oxidant feed tubes at least one of said input leg, said output leg, and said support fin includes a fuel reformation catalyst material.
26. (currently amended) The fuel cell assembly multi function bundle of claim 1823 wherein said fuel supply system comprises a plurality of fuel feed tubes, wherein each fuel feed tube comprises an inlet leg comprising ~~comprises~~ a first elongated sleeve having an inlet and an outlet and an, wherein said outlet leg comprising ~~comprises~~ a second elongated sleeve having an open end and a closed end, and wherein a portion of ~~said~~ first elongated sleeve is nested inside said second elongated sleeve, said first elongated sleeve and said second elongated sleeve being in fluid communication to form a flow path.
27. (currently amended) The fuel cell assembly multi function bundle of claim 26 wherein said first elongated sleeve is separated from said second elongated sleeve by at least one support fin.
28. (currently amended) The fuel cell assembly multi function bundle of claim 18 wherein said support structure includes at least one of an exhaust/air distribution box, a recirculation box, a fuel box, a cell spacer, and a fuel cell and fuel feed spacer attached to said plurality of fuel cells.
29. (currently amended) The fuel cell assembly multi function bundle of claim 28 wherein at least one of said exhaust/air distribution box, said recirculation box, said fuel box, said cell spacer, and said fuel cell and fuel feed spacer includes a tongue-and-groove connector.
30. (currently amended) The fuel cell assembly multi function bundle of claim 18 wherein said support structure includes at least one of an upper cell spacer plate, a lower cell spacer plate, an air tube spacer plate, chamber supports, a reformer box, seal locator strips, and a fuel cell and fuel feed spacer.

31 – 100. (canceled).